

# Ecology Review Comments

## East Waterway Operable Unit Proposed Plan

### (Draft Final, February 23, 2021)

<b>Comment No.</b>	<b>Section</b>	<b>Paragraph<sup>a</sup></b>	<b>Page#</b>	<b>Comment</b>	<b>Response</b>
1	1	Text box	2	Change the 4th item to "Scope of the Remedial Strategy for the EW Operable Unit" to make it consistent with the heading of Section 4 on Page 20.	Agreed. Change made.
2	1.1	3	3	The steps of the process that have been completed at the Site should include the actions completed prior to the 2014 SRI, including the non-critical removal actions conducted in 2004-2005.	No change needed. This portion of the introduction discusses the process portrayed in Figure 2. The level of detail in this portion of the introduction is sufficient. A discussion of previous dredging actions is presented in Section 2.
3	2.1	5	7	Please provide the project webpage address for the Site.	Agreed. Webpage will be added when available.
4	3.1	1 <sup>st</sup> Bullet	9	Please clarify whether the Deep Main Body and Berth Areas include the entire Deep Main Body as well as the entire Junction Reach, or just the northern end of the Deep Main Body Reach and the southern-end of Junction Reach.	Agreed. Clarified text added, "...the Junction Reach at the southern end of the EW OU."
5	3.1	Fig 6	11	As shown on Fig 6, the Junction Reach is included in the category of "Deep Main Body and Berth Areas". Thus, it should be added in the open water areas in the note beneath Fig 6.	Agreed. Junction Reach will be added.
6	3.2.1	1	12	Suggest describing description of sources of contamination with the same terms as used in the callout on pg 14. E.g., "Ongoing sources include contaminated upland sites, spills and leaks, bank erosion, deterioration of treated-wood structures, and urban pollution that enters the EW OU directly through stormwater runoff and CSOs (together termed lateral loads), and indirectly from the upstream Green River watershed (See [ REF _Ref46224810 \h \* MERGEFORMAT ] ). "	Agreed. Change made.
7	3.2.1	2	12	Suggested edit: EPA is working with the EWG to develop source control plans that address current chemical sources directly discharging to the EW OU, as described on page [ PAGEREFSourcesOfContam \h ].	Agreed. Change made.

<b>Comment No.</b>	<b>Section</b>	<b>Paragraph<sup>a</sup></b>	<b>Page#</b>	<b>Comment</b>	<b>Response</b>
8	3.2.1	3	12	Have source tracing and cleanup programs reduced the frequency and volumes of discharges? I would remove source tracing and cleanup programs if the point is about frequency and volume. Suggest editing to: "The County and the City have reduced the frequency and volumes of discharges to the EW OU. Both also conduct source tracing and cleanup actions at upland facilities and properties. These actions include cleaning....."	Agreed. Change made.
9	3.2.1	4	12	Suggest revise the second sentence as follows "EPA and EWG will perform Source Control an assessment during remedial design to ensure that the major sources are sufficiently managed to minimize the risk of recontamination."  Please define the term "recontamination"	No change needed. The last sentence in this section describes the sufficiency determination process.  The term recontamination is considered to be understood.
10	3.2.1	Text box, after section	14	1 <sup>st</sup> Paragraph. Pleas define the term recontamination.	This term is no longer in text box.
11	3.2.2	Text box, after section	14	2nd paragraph,  Not sure why Ecology was removed here since Ecology leads LDW source control.  It would be better phrased and accurate to state the following: EPA is working with King County, the City of Seattle and the Port of Seattle implement source control plans employing source control actions similar to those for Lower Duwamish Waterway and per federal Clean Water Act and Washington State Water Pollution Control Act requirements. In addition, CSO controls are required under both State federal Consent Decrees.  Upstream Sources: the following text is recommended: Sources in the LDW include heavy industrial activities, storm water, CSOs, ground water discharge, bank erosion, and treated wood structures. EPA is working with King County, the City of Seattle, as well as smaller municipalities in the watershed...	At Ecology's request, references to the agency was removed from any discussion of source control for the EW OU. However, Ecology is included in portions of text discussing Green River source control and PLA.  No change required.

<b>Comment No.</b>	<b>Section</b>	<b>Paragraph<sup>a</sup></b>	<b>Page#</b>	<b>Comment</b>	<b>Response</b>
12	3.2.3	3	15	The text and Figure 8 presented the horizontal distribution of the major risk drivers in surface sediment. However, there is lack of information regarding vertical distribution of the major COCs. Suggest adding cross-sections figures or text to present the vertical extent of the two major COCs (PCBs and mercury) in subsurface sediment.	No change needed. Information on vertical distribution is presented in text. Figures with vertical core sections will be presented in the ROD.
13	3.2.3	6	17	Is additional assessment still needed now that USCG collected additional sediment samples? What is the results of the assessment?	No change needed. Additional information on the USCG will be included in the ROD.
14	3.2.3	Text box	15	Change "Toxic equivalencies" to "toxic equivalency quotient"	No change needed.
15	3.2.3	Last para	17	The text states that EPA is currently coordinating with the USCG to evaluate options and perform a cleanup of sediments at Slip 36. However, it's not clear whether the cleanup of sediments at Slip 36 will be conducted by the USCG as a separate remedial action.	No change needed. USCG is doing their own assessment under a separate order.
16	3.2.4	1	17	Include a statement about why AB values were calculated? i.e. what they would be used for. Also provide the rule reference that allows ABs to be considered in cleanups.	No change needed. This section defines AB, how it was derived and presents the AB values. The use of AB is included in Section 6.
17	3.2.4	3	17	Please add Anchor QEA 2021; Table 3 to the reference list.	Agreed. The AB Memo will be added to the reference list and Table 3.
18	3.2.4	Table 3	18	Add a reference or briefly discuss how the Dioxin/Furan TEQ was established since it is not included in the AB memo.  Foot note to table 3. The table only presents the AB values. Please add column for RBTC and RALs so a reader can make a comparison.	Agreed. A reference to the appropriate section of the FS will be added.  No change needed. This table presents the AB values. The RAL is presented in Section 6.
19	3.2.4	-	-	General comment: Please add a paragraph about reevaluating the AB value in the future. Will EPA revisit this after a set time has passed? If source control efforts within the watershed are successful the AB values should decrease over time. Is EPA then going to lower the cleanup level to a more protective value?	No change needed. EPA may consider the possibility of reviewing AB input concentrations in the future. This may be discussed in ROD.

<b>Comment No.</b>	<b>Section</b>	<b>Paragraph<sup>a</sup></b>	<b>Page#</b>	<b>Comment</b>	<b>Response</b>
20	3.3	2	18	Section 9 on Page 49 regarding placement of Residuals Management Cover, it says that for the preferred alternative, 4 to 12 inches thick of RMC will be placed following completion of dredging activities. If the deepening project is implemented following completion of the cleanup, it is most likely that the clean RMC materials need to be removed. This will be an interference with the cleanup action, correct?	No change needed. This level of detail is not needed for proposed plan. Will be explained in the ROD.
21	3.3	2	18	How could a deepening project not impact the cleanup? Was the cleanup designed to accommodate the deepening project? If so, explain how. If there is no impact from the deepening project, please explain why not.	No change needed. This level of detail is not needed for proposed plan. Will be explained in the ROD.
22	3.3	3	18	DNR does not own most of the aquatic bottom lands in the EW OU. The land is owned by the State and managed by DNR.	Agreed. Change made.
23	3.4	1	18	Commercial activities are not discussed in Section 3.3 and are not shown in Figure 9.	No change needed. Commercial activities are discussed as a Current and Future Land Use.
24	3.4	1	18	Last sentence in paragraph 1. Please explain what the fish advisories are based on.	No change needed. As indicated in the text, the fish advisory is a DOH advisory.
24	4	5	21	3 <sup>rd</sup> bullet point add: Direct contact with surface waters and sediments for swimmers, including skin absorption and incidental  4 <sup>th</sup> bullet edits: Direct contact with sediment for habitat restoration workers, including incidental ingestion and dermal contact.	Agreed. Changes made.
26	6.2.2	1	27	Please provide the points of compliance for the PRGs as listed in Table 6.	Spatial scale for PRGs is presented in the table. The depth of compliance is defined by the RAL as presented in 7.2.1 under the removal description. A footnote will be added to the PRG table.
27	6.2.2	2	27	The CERCLA program does not generally set cleanup levels below natural or anthropogenic background concentrations with consideration of cost effectiveness, technical practicability, and the potential of recontamination from adjacent areas with elevated background concentrations. However, it should be noted that the	No change needed. This section refers to the CERCLA program and does not describe the SMS process, except where PRGs are based on SMS ARARs (benthic SCO and CSL values).

<b>Comment No.</b>	<b>Section</b>	<b>Paragraph<sup>a</sup></b>	<b>Page#</b>	<b>Comment</b>	<b>Response</b>
				cleanup levels established under SMS only consider technical possibility and net adverse environmental impact, not cost.	
28	6.2.2	4	27	The PRGs for PCBs, D/Fs, <u>arsenic</u> have been established based on their anthropogenic background as proposed in the AB Technical Memorandum (QEA, March 2021). As Ecology commented on the AB technical memorandum, the concept of anthropogenic background under CERCLA is different from the concept of regional background under SMS. Additional discussion is needed to demonstrate how meeting the proposed anthropogenic background will meet SMS requirements for regional background.	With regard to the calculation of anthropogenic background, portions of MTCA (WAC 173-204-709) and SMS (WAC 173-204-560) are potential ARARS, but the inputs and calculations to be used include many discretionary elements for EPA to use based on the site specific issue on hand. These includes methods to calculate a background value, statistical analyses, and sampling determinations. Because of the discretionary nature of these elements of MTCA and SMS, EPA will use their own guidance, methodologies, and approach which allow for calculating anthropogenic background to meet the substantive requirements of WAC 173-204-709 and WAC 173-204-560. The discretionary aspects of the methodologies and calculations in the state regulatory provisions would not be considered ARARs, but these state regulations may be a TBC.
29	7.1	3	30	It says that the RALs for each of the COCs were based on the lowest established PRGs with the exception of PCBs. This statement is not correct for dioxins/furans. The PRGs for dioxins were established for four congeners, however, the RAL has been established for dioxins/furans TEQ.	Agreed. Text will be added to indicate the derivation of the D/F RAL.
30	7.2.1	3rd bullet	31	It says that all sediment with contaminant concentrations above the RAL is removed in most open water areas. Please clarify if there are any other areas other than the Communication Cable Crossing area where contaminated sediment above the RAL will remain.	No change needed. This is the only area where there is a physical limitation for removal. Other areas that may not be fully dredged are described in the alternatives sections (such as areas that will be capped).
31	7.4	General		It appears that no action will be implemented in the riprap areas as shown in Fig 11 through Fig 13. Please provide a brief discussion in the text why no remedial actions have been proposed in those areas and how this no action will impact the overall effectiveness of the cleanup in the long-term.	The riprap areas are areas where there is riprap with little to no sediment. This will be noted in the text.
32	9	Last bullet	47	Suggest adding "but above PRGs" at the end of the last sentence.	Agreed – change made.

<b><i>Comment No.</i></b>	<b><i>Section</i></b>	<b><i>Paragraph<sup>a</sup></i></b>	<b><i>Page#</i></b>	<b><i>Comment</i></b>	<b><i>Response</i></b>
33	9.1	Figs 14 and 15	49	The Last bullet on Page 47 says that MNR will be implemented in 36 acres of the waterway, but this has not been presented in neither Fig 14 nor 15. The legend needs to be updated.	Agreed – change made.

<sup>a</sup> Paragraph refers to the paragraph within the designated section.